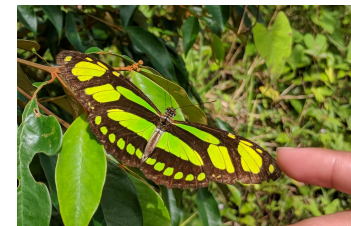




# Engineering Service Learning in Guyana

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Project Category: Study Abroad  
Faculty Mentor: Dr. Nicole Nieto  
12/13/19 – 12/23/19 Georgetown, Guyana, South America



## What I Learned:

Throughout my time in Guyana, I was able to learn about the history of Guyana, the engineering techniques used within infrastructure and farming, and about the needs of Amerindian isolated communities. Having oil reserves recently discovered off the coast of Guyana, the economy in Georgetown is booming with many new immigrants coming in to be apart of the incoming oil money. The sugarcane plantations, which still are a vital part of the Guyanese community, are feats of engineering which surprisingly do not utilize electricity or motorized farm vehicles. Lastly, I was able to learn about the needs of the local native communities within the country in hope to inspire future projects for Guyana at Ohio State.

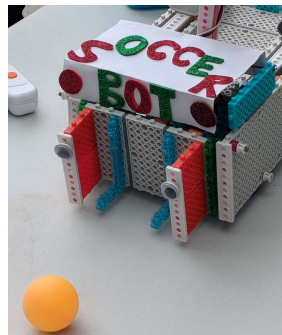


## My Motivation for the Project:

I have always wanted to travel to another continent, and specifically to the rainforests of South America. I have always enjoyed service trips, and the opportunity to combine service with engineering was especially interesting to me. To my advantage, the academic class I took before the project was able to be used as one of my technical engineering electives. All of this together made this trip a perfect match for what I was looking to fulfill through STEP.

## Project Description:

Guyana is a small country in South America located directly north of Brazil and directly east of Venezuela. Guyana is an interesting case study for engineering and city infrastructure because of its third world status and the vast amount of natural resources such as oil, gold, and fertile farmland within the country. For this project, visiting local isolated villages and holding discussions with the townspeople helped identify needed engineering solutions that could be provided through students at Ohio State. Additionally, travel was done around the capital city of Georgetown and throughout the land along the Essequibo and Demerara rivers. Overall, the experience enabled me to learn more about humanitarian engineering as well as the potential I have for my future work as an engineer.



## How the Project was Transformational:

My view on my work as an engineer was the largest transformation I had during this experience. In my classes, I am trained on how to utilize the state-of-the-art technologies and resources available to engineers in the United States. However, the scientists and engineers in Guyana were able to create highly reliable and dependable infrastructure without access to even a fraction of the resources that they would be in a developed country. This helped me realize both that it only takes few resources to produce a viable solution to a problem, and that I can create much more than I think I can with the resources I have access to. My perception of third-world countries was also changed as a result of the experiences I had during the trip. Going between the capital city of Georgetown and the isolated villages within the rainforest allowed me to witness the gap between the wealthiest and the poorest in the society of Guyana. As the oil economy in Guyana continues to increase rapidly, I only hope that the government allocates resources appropriately to reduce the socioeconomic gap between the capital city and the isolated rainforest villages. I am thankful that I was able to first-hand witness the difference in living conditions across the people of Guyana. I believe this experience will not only benefit me as an engineer but also as a person moving forward.



## My Favorite Part of the Experience:

Although I deeply enjoyed being able to work with the isolated communities of Guyana, my favorite part of the project was being able to explore the forests and rivers that are unique to Guyana's rainforests. Swimming in rivers the color of Coke, boating across the largest river in South America, and hiking through the dense rainforests are some of the activities I was able to enjoy to name a few. As someone who is very interested in Biology, it was an awesome experience to be in a part of the world with some of the highest biodiversity known to man. Being able to be submersed in the beautiful nature of Guyana heightened the overall experience, and made me appreciate even more the culture and community of Guyana.



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